

**REMARKS**

Claim 6 has been amended, claim 13 has been cancelled and new claim 39 has been added. Claims 6-12, 14-19 and 39 are pending and under consideration. Claims 7, 8, 9, 10 and 17 are rejected under 35 USC §103(a) as being obvious over Sommer et al. in view of US Patent No. 5,507,623 to Kojima.

Claims 6, 11-16, 18 and 19 are rejected under 35 USC §102(b) as being anticipated by US Patent No. 6,280,857 to Sommer et al. The Examiner argues that the claimed composition does not have a priority date of April 22, 1999. The Examiner's reference to the April 1999 date appears to be an error. PCT Application No. PCT/DE99/01217 was filed on April 22, 1999. However, this application claims priority to German Application No. 19819026, which was filed on April 29, 1998. In addition, it should be noted that all features disclosed in the present application find support in at least one of the priority applications.

Regardless of the priority issue, it is submitted that the amended claims patentably distinguish over Sommer et al. With regard to independent claims 6 and 39, the following table summarizes the difference between Sommer et al. and Claims 6 and 39.

<b>Sommer et al.</b>	<b>Claims 6 and 39</b>
18 to 28 wt % of Co	24 to 26 wt. % Co
11 to 15 wt % of Cr	17 wt. % Cr
11.5 to 14 wt % of Al	10 wt. % Al
1 to 8 wt % of Re	1.5 wt. % Re
1 to 2.3 wt % of Si <sup>2</sup>	
0.2 to 1.5 wt % of Ta <sup>2</sup>	
0.2 to 1.5 wt % of Nb	
0.3 to 1.3 wt % of Y <sup>1</sup>	
0 to 1.5 wt % of Mg	
0 to 0.5 wt % of a total of La and La-series <sup>1</sup>	
0 to 0.1 wt % of B	

less than 0.1 wt % of C	
balance Ni (27.4 wt. % or more)	

<sup>1</sup>The total of Y, La, and La-series is from 0.3 to 2.0 wt %, and

<sup>2</sup>The total of Si and Ta is equal to or less than 2.5 wt %.

It should be apparent from the above that Sommer et al. is very different from the invention claimed in claims 6 and 39. Specifically, Sommer et al. discloses 18 - 28 wt. % Co, whereas claims 6 and 39 require 24 – 26 wt. % Co. Further, claims 6 and 39 require 1.5 wt. % Re, whereas Sommer et al. discloses only 1 – 8 wt. % Re. Sommer et al. did not have possession of an alloy containing 24 – 26 wt. % Co and approximately 1.5 wt. % Re. Sommer et al. only realizes that very broad ranges can be used.

The present invention as claimed in claims 6 and 39 has very different chromium and aluminum contents. Specifically, claims 6 and 39 require 17 wt. % Cr, whereas Sommer et al. has 11 – 15 wt. % Cr. There is no suggestion in Sommer et al. to use more Cr. Claims 6 and 39 require 10 wt. % Al, whereas Sommer et al. uses 11.5 – 14 wt.% Al. There is no suggestion in Sommer et al. to use less Al.

Spanning pages 5 and 6 of the Office Action, the Examiner admits that Sommer et al. is deficient in the Cr and Al content. The Examiner cites *Titanium Metals Corp.*, 227 USPQ 773 (CAFC 1985) for the proposition that “one of ordinary skill in the art would have expected compositions that are in such close proportions to those in prior art to be *prima facie* obvious, and to have same properties.” A copy of the *Titanium Metals* decision is enclosed for the Examiner’s review. It is not relevant to the present application. Specifically, in *Titanium Metals*, the lower court was presented with arguments relating properties, which were not claimed. See below.

As we read the situation, the court was misled by the arguments and evidence to the effect that the inventors here found out and disclosed in their application many things that one cannot learn from reading the Russian article and that this was sufficient in law to justify granting them a patent for their contributions -- such things as what good corrosion resistance the claimed alloys have against hot brine, which possibly was not known, and the range limits of the Ni and Mo content, outside of which that resistance diminishes, which are teachings of very useful information. These things the applicants teach the art and the Russian article does not. Indeed, appellee's counsel argued in his opening statement to the trial court that the PTO's refusal of a patent was "directly contrary to the requirement of Article I, Section 8, of the Constitution," which authorizes Congress to create a patent law. But throughout the trial counsel never came to grips with the real issues: (1) what do the claims cover and (2) is what they cover new?

Titanium Metals at page 778

The Court found that claims 1 and 2 of the Titanium Metal application were anticipated. The obviousness issue did not apply to these claims. For claim 3 of the Titanium Metals application, the CAFC also made references to claim 3 being anticipated. The following is the text cited by the Examiner of the present application.

As admitted by appellee's affidavit evidence from James A. Hall, the Russian article discloses two alloys having compositions very close to that of claim 3, which is 0.3% Mo and 0.8% Ni, balance titanium. The two alloys in the prior art have 0.25% Mo - 0.75% Ni and 0.31% Mo - 0.94% Ni, respectively. The proportions are so close that *prima facie* one skilled in the art would have expected them to have the same properties. Appellee produced no evidence to rebut that *prima facie* case. The specific alloy of claim 3 must therefore be considered to have been obvious from known alloys.

Titanium Metals at page 779.

It appears that the reference to "properties" relates to the evidence discussed above, which may have misled the Titanium Metals trial court. In any case, the Titanium Metals prior art disclosed 0.25 % Mo and 0.31% Mo, whereas the Titanium Metals claim required 0.3% Mo. The claimed amount is within the amounts disclosed in the prior art. Further, Titanium Metals claim 3 required 0.8% Ni, whereas the prior art discloses 0.75% Ni and 0.94% Ni. Again, the claimed amount is within the amounts disclosed in the prior art. This is very different from the claimed composition, in which the claimed amounts are clearly outside of what is disclosed in Sommer et al.

Specifically with regard to claim 16, please refer to the below table. Sommer et al. does not disclose 15 – 21 wt. % Cr. Further, Sommer et al. does not disclose 9 to 11.5 wt. % Al. In addition, claim 16 recites a protective layer consisting essentially of the claimed elements. On the other hand, Sommer et al. requires 1 to 2.3 wt. % Si, 0.2 – 1.5 wt. % Ta, the sum of Si and Ta being equal to or less than 2.5 wt. %. Further, Sommer et al. requires 0.2 – 1.5 wt. % of Nb. Thus, Sommer et al. requires at least 1.4 wt. % of elements not included in the claimed 16 invention. Accordingly, in addition to the significant deficiencies with regard to the chromium content and the aluminum content, Sommer et al. has additional materials, and claim 16 has closed-ended language.

Sommer et al.	Claim 16
18 to 28 wt % of Co	24 to 26 wt. % Co
11 to 15 wt % of Cr	15 to 21 wt. % Cr
11.5 to 14 wt % of Al	9 to 11.5 wt. % Al
1 to 8 wt % of Re	0.5 to 2 wt. % Re
1 to 2.3 wt % of Si <sup>2</sup>	
0.2 to 1.5 wt % of Ta <sup>2</sup>	
0.2 to 1.5 wt % of Nb	
0.3 to 1.3 wt % of Y <sup>1</sup>	0.05 to 0.7 wt. % yttrium, scandium, rare earths
0 to 1.5 wt % of Mg	
0 to 0.5 wt % of a total of La and La-series <sup>1</sup>	0 to 1 % ruthenium
0 to 0.1 wt % of B	
less than 0.1 wt % of C	Production related impurities
Balance Ni (27.4 wt. % or more)	Balance Ni (about 37.8 wt % or more)

<sup>1</sup>The total of Y, La, and La-series is from 0.3 to 2.0 wt %, and

<sup>2</sup>The total of Si and Ta is equal to or less than 2.5 wt %.

In accordance with the foregoing amendments and remarks, it is submitted that the prior art rejections should be withdrawn. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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